

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: AISI A2 TOOL STEEL, ANNEALED CONDITION

SPECIFICATION: ASTM A681

PART NUMBER: MSTEEL-A2-BT.TTT X W.WWW

WHERE "T.TTT" = THICKNESS IN INCHES
"W.WWW" = WIDTH IN INCHES

EG. 0.500" X 1.250" BAR = MSTEEL-A2-B0.500X1.250

TOLERANCES: PER ASTM A681 AS FOLLOWING

TABLE 14 Hot-Rolled Flat Bars
(Width and Thickness Tolerances Width Tolerances)[^]

Specified Widths, in. (mm)		Width Tolerances, in. (mm)											
		Under						Over					
To 1 (25.4), incl		0.016 (0.41)						0.031 (0.79)					
Over 1 to 3 (25.4 to 76), incl		0.031 (0.79)						0.047 (1.19)					
Over 3 to 5 (76 to 127), incl		0.047 (1.19)						0.063 (1.60)					
Over 5 to 7 (127 to 178), incl		0.063 (1.60)						0.094 (2.39)					
Over 7 to 10 (178 to 254), incl		0.078 (1.98)						0.125 (3.18)					
Over 10 to 12 (254 to 305), incl		0.094 (2.39)						0.156 (3.96)					

Specified Widths, in. (mm)	Thickness Tolerances for Specified Thicknesses, in. (mm)											
	To ¼ (6.4), incl		Over ¼ to ½ (6.4 to 12.7), incl		Over ½ to 1 (12.7 to 25.4), incl		Over 1 to 2 (25.4 to 50.8), incl		Over 2 to 3 (50.8 to 76), incl		Over 3 to 4 (76 to 102), incl	
	Under	Over	Under	Over	Under	Over	Under	Over	Under	Over	Under	Over
To 1 (25.4), incl	0.006 (0.15)	0.010 (0.25)	0.008 (0.20)	0.012 (0.30)	0.010 (0.25)	0.016 (0.41)	...	...	...	...	...	...
Over 1 to 2 (25.4 to 50.8), incl	0.006 (0.15)	0.014 (0.36)	0.008 (0.20)	0.016 (0.41)	0.010 (0.25)	0.020 (0.51)	0.020 (0.51)	0.024 (0.61)	...	...	...	...
Over 2 to 3 (50.8 to 76), incl	0.006 (0.15)	0.018 (0.46)	0.008 (0.20)	0.020 (0.51)	0.010 (0.25)	0.024 (0.61)	0.020 (0.51)	0.027 (0.69)	0.026 (0.66)	0.034 (0.86)	...	...
Over 3 to 4 (76 to 102), incl	0.008 (0.20)	0.020 (0.51)	0.010 (0.25)	0.022 (0.56)	0.013 (0.33)	0.024 (0.61)	0.024 (0.61)	0.030 (0.76)	0.032 (0.81)	0.042 (1.07)	0.040 (1.02)	0.048 (1.22)
Over 4 to 5 (102 to 127), incl	0.010 (0.25)	0.020 (0.51)	0.012 (0.30)	0.024 (0.61)	0.015 (0.38)	0.030 (0.76)	0.027 (0.69)	0.035 (0.89)	0.032 (0.81)	0.042 (1.07)	0.042 (1.07)	0.050 (1.27)
Over 5 to 6 (127 to 152), incl	0.012 (0.30)	0.020 (0.51)	0.014 (0.36)	0.030 (0.76)	0.018 (0.46)	0.030 (0.76)	0.030 (0.76)	0.035 (0.89)	0.036 (0.91)	0.046 (1.17)	0.044 (1.12)	0.054 (1.37)
Over 6 to 7 (152 to 178), incl	0.014 (0.36)	0.027 (0.69)	0.016 (0.41)	0.032 (0.81)	0.018 (0.46)	0.035 (0.89)	0.030 (0.76)	0.040 (1.02)	0.036 (0.91)	0.048 (1.22)	0.046 (1.17)	0.056 (1.42)
Over 7 to 10 (178 to 254), incl	0.018 (0.46)	0.030 (0.76)	0.020 (0.51)	0.035 (0.89)	0.024 (0.61)	0.040 (1.02)	0.035 (0.89)	0.045 (1.14)	0.040 (1.02)	0.054 (1.37)	0.052 (1.32)	0.064 (1.62)
Over 10 to 12 (254 to 305), incl	0.020 (0.51)	0.035 (0.89)	0.025 (0.64)	0.040 (1.02)	0.030 (0.76)	0.045 (1.14)	0.040 (1.02)	0.050 (1.27)	0.046 (1.17)	0.060 (1.52)	0.056 (1.42)	0.072 (1.83)

[^] Out of square tolerance to be ¾ of total width tolerance max.

RELEASED
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CHECKED	CP	DRAWING NO.	REV. A
MFG. APPR.	N/A	MSTEEL-A2	SHEET 1 OF 1
APPROVED	AP	TITLE	SCALE
DE APPR.	AP	AISI A2 TOOL STEEL	NTS
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